SHUL'GIN, B.V.; GAVRILOV, F.F.; DVINYANINOV, B.L.

Dielectric constant of lithium hydride single crystals. [27. vys. ucheb. zav.; fiz. 8 no.3:175 '65. (MIRA 18:9)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova.

JD/JG EWT(m)/EWP(m)/ETI IJP(c) 1. 04606-67 SOURCE CODE: UR/0020/66/170/003/0552/0553 ACC NRI AP6032851 AUTHOR: Pinayeva, M. M.; Shul'gin, B. V.; Krylov, Ye. I. ORG: Ural Polytechnic Institute im. S. M. Kirov (Ural'skiy politekhnicheskiy institut) 27 TITLE: On the luminescence of europium orthotantalate Doklady, v. 170, no. 3, 1966, 552-553 SOURCE: AN SSSR. europium compound, luminescence TOPIC TAGS: ABSTRACT: An investigation was made of the luminescence of europium orthotantalate and lanthanum orthotantalate in view of their possible use in lasers. Excitation was produced by ultraviolet light with a wavelength of 265 mu from the full spectrum of a mercury vapor lamp. A monochromator, a photoelectronic multiplier with high sensitivity in the red region, and an amplifier were used to analyze the luminescence spectrum. All experiments were performed at 300K. In the EuTaO4 spectrum, the strongest line observed was 608 mm with a 22-mm halfwidth. Also observed were the 595, 695, 656, and 538 mm lines (given in the order of decreasing sensitivity). The measurements of LaTaO4 showed high luminescence in the investigated region. Here, the presence of the 608, 538, and 695 mu lines demonstrates a sufficiently high luminescence intensity of europium contained in the LaTaO4 matrix at a concentration of 0.01%. Because of the lack of a 220-mm excitation source, the maximum of the excitation UDC: 546.651 + 546.883:535.370

	EuTaO4 could not be that at this exci					,
ments showed can be close art. has: 2	to unity, i.e., to	wice as high as	the estimate	ed output of LaTa	O ₄ . Orig.	
	O/ SUBM DATE: 25De	c65/ ORIG REF:	002/ OTH REF	: 007/ ATD PRESS:	5100	
					:	
				•		
		•			:	
						<u> </u>
					•	
				•		ļ
		•		• • •		1

SHULGIN, D.F. Sul'gin, D. F. Flow about a composite profile of variable permeability. Akad. Nauk SSSR. Prikl. Mat. Meh. 17, 285-292 (1953). (Russian) Envisageons un écoulement permanent plan du liquide, unisorme à l'infini, incliné sur l'axe Ox. Sur une longueur finie de cet axe se trouve réparti un nombre fini d'obstacles rectilignes. Tchaplyguine [Oeuvres, t. II, Gostehizdat, Moscow-Leningrad, 1948, pp. 431-471; ces Rev. 14, 609] a formé la fonction caractéristique du régime. L'auteur par Mathematical R views un passage à la limite, étend ces conclusions au cas où le Vol. 15 No. 4 nombre de segments augmenterait indéfiniment alors que Apr. 1954 la longueur de chacun d'eux tendait vers zéro; la densité des Mechanics parties pleines étant inférieure à 1. Dans la deuxième partie du mémoire, l'auteur reprend la configuration étudiée par Tchaplyguine, mais en supposant que les obstacles sont attaqués par un jet gazeux subsonique. Moyennant quelques hypothèses empruntées à la théorie des ailes minces, le problème est ramené à une équation intégrale singulière que l'on peut résoudre. J. Kravichenko (Grenoble).

A CONTRACTOR OF THE PARTY OF TH	Motion of a slig SAGU no.54:137-1	htly curved permeable 1 46 *54. (Aeredynamics)	Otation smiles.	(MIRA 10:3)	
			_		

SOV/124-57-4-4015

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 24 (USSR)

Shul'gin, D. F. AUTHOR:

The Unsteady Motion of a Thin Permeable Profile in a Fluid (Neu-TITLE:

stanovivsheyesya dvizheniye tonkogo pronitsayemogo profilya v

zhidkosti)

PERIODICAL: Tr. Sredneaz. un-ta, 1956, Nr 66, pp 61-67

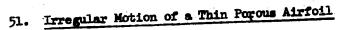
ABSTRACT: The paper examines the unsteady motion of a slightly cambered permeable profile. The change in pressure during passage through the

porous surface is assumed in the form of $\Delta p = av + \lambda$ where a and λ are experimentally derived constants characterizing the permeability of the profile and v is the velocity of the permeation. The author applies to his solution of the problem L. I. Sedov's method [Sedov, L. I., Ploskiye zadachi gidrodinamiki i aerodinamiki (Plane Problems of Hydrodynamics and Aerodynamics). Gostekhizdat, Moscow-Leningrad, 1950, pp 46-80]. The author reduces the solution of the problem to a system of two first-order integral equations. He finds an exact solution of that system for the harmonic oscillations of a pro-

file superimposed on a steady-state translational motion with a con-P. F. Korotkov Card 1/1

stant velocity.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"



547 Ext.

"Irregular Motion of a Thin Porous Airfoil in a Liquid," by D. F. Shul'gin, Tr. Sredneaz. un-ta, 1956, Issue 66, pp 61-67 (from Referativnyy Zhurnal -- Mekhanika, No 4, Apr 57, Abstract No 4015, by P. F. Korotkov)

"This article discusses the irregular motion of a slightly curved porous airfoil. The change of pressure which takes place during the passing of the liquid over the porous surface is expressed in the form:

$$\Delta p = av + \eta$$
,

where a and η are the experimentally obtained constants which characterize the porosity of the airfoil, and v is the velocity of penetration.

"For the solution of the problems, the author uses the method of L. I. Sedov (Sedov, L. I., <u>Plaskiye Zadachi Gidrodinamiki i Aerodinamiki</u>, (Plane Problems in Hydrodynamics and Aerodynamics), Moscow-Leningrad, 1950, pp 46-80). The author reduces the solution of the problems to a system of two integral equations of the first order. In this system a precise solution is found for the harmonic vibrations of an airfoil with a steady forward motion with constant velocity." (U)

SOV/24-58-10-8/34

AUTHORS: Vasil'yev, V. A., and Shul'gin, D. F. (Tashkent)

TITLE: Flow of Percolation Water into Symmetrically Placed Water Intakes (Pritok infil'tratsionnoy vody v simmetrichno raspolozhennyye vodopriyemniki)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, Nr 10, pp 46-50 (USSR)

ABSTRACT: Precipitation falls on a strip of width 2 (Fig.1) symmetrically placed between two buried water intakes, separated by a distance 2L. The paper discusses the shape of the underground water surface resulting from these conditions. To solve the problem, the region is transformed conformally, and by applying complex variable methods, the theory of linear differential equations and the boundary conditions, the required shape is determined. There are 4 figures and 3 Soviet references.

SUBMITTED: February 13, 1958.

Card 1/1

VASILITEV. V.A. (Tashkent); SHULIGIN, D.F. (Tashkent)

Performance of screem pipes of drilled wells. Izv. AN SSSR. Otd.
tekh.nauk.Mekh. i mashinostr. no. 1:135-139 Ja-F '61.

(Oil well drilling) (Filters and filtration)

(Oil well drilling) (Filters and filtration)

VASIL'YEV, V.A.; SHUL'GIN, D.F.

Theory of the performance of the filter of a water-intake well. Nauch. trudy TashGU no.209. Mat. nauki no.23:3-15'62. (MIRA 16:8)

SHUL'GIN, D.F.

Nonuniform perforation of well filters. Izv. vys. uch. zav.; neft' i gaz 5 no.9:111-116 '62. (MIRA 17:5)

1. Tashkentskiy gosudarstvennyy universitet im. V.I. Lenina.

KOVUN, P.K., NEVZOROV, A.P., ANTONENKO, G.P., BUDINA, L.V.; VORONINA, Ye.P.;

GUSEV, P.I.: YELAGIN, M.N., ZHURAVLEV, M.A., ZALOZNYY, K.D.: KOMKOV, V.N.;

KOROBOV, A.S.; KORCHAGIN, V.N.; LAVROV, V.N.; LAPSHINA, O.V.; LUTIKOV, I.Ye.,

MAKEVNIN, A.Ya.; MOROZOVA, F.I.; NEVZOROV, A.P.; PONOMARCHUK, M.K.; PUCH—

KOV, A.M.; RAZMOLOGOVA, A.M.; RUBIN, S.M.; SELEZNEVA, O.V.; SEMENOVA, F.I.;

SPIRIDONOVA, A.I.; SUSHCHEVSKIY, M.G.; USOV, M.P.; TARKOVSKIY, M.I.; CHENYKAYEVA, Ye.A.; SHENDRIKOV, G.L.; SHUL'GIN, G.T.; TSITSIN, N.V., akademik, redaktor; REVENKOVA, A.I., redaktor; KHOKHRINA, N.M., khudozhestvennyv redaktor; VESKOVA, Ye.I., tekhnicheskiy redaktor; PEVZNERV.B.I., tekhnicheskiy redaktor.

[Plant breeding at the 1955 All-Union Agricultureal Exhibition] Rastenie-vodstvo na Vsesoiuznoi sel'skokhoziaistvennoi vystavke 1955 goda. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1956. 687 p. (MLRA 10:4)

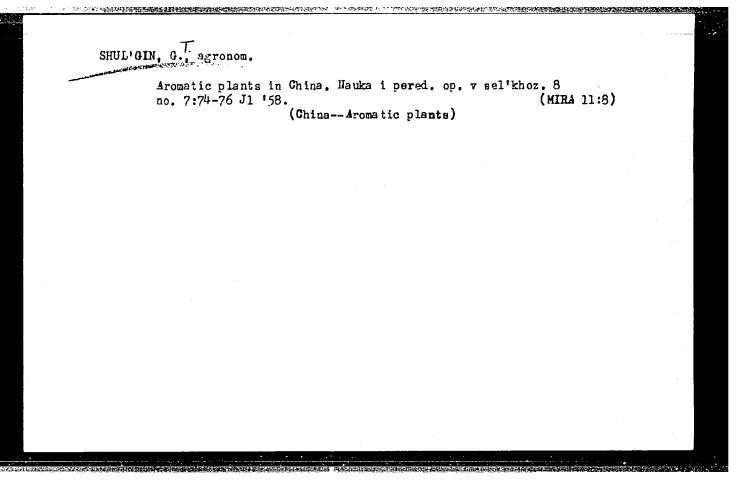
(Moscow--Plant breeding--Exhibitions)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"

SHUL'GIN, G.T., agronom.

A most important means for increasing production and lowering the cost of essential oils. Masl.-zhir. prom. 23 no.4:14-16 '57. (MIRA 10:5)

 Ministerstvo sel'skogo khozyaystva SSSR. (Aromatic plants)



SHUL'GIN, Georgiy Tikhonovich; ZALOZNYY, Kirill Danilovich; BYKOVA, M.G., red.; GOR'KOVA, Z.D., tekhn.red.

[Concise manual of aromatic plants] Kratkii spravochnik po efiromaslichnym kul'turam. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 160 p. (MIRA 13:2)

(Aromatic plants)

ALEKSEYEVA, Ye.I., kand. sel'khoz. nauk; BUZINOV, P.A., kand. sel'khoz. nauk; VODOLAGIN, V.D.; VOLKHOVSKAYA, U.V.; GLUSHCHENKO, N.N., kand. biol. nauk; GURVICH, N.L., doktor biol. nauk; ZHELEZNOV, P.A., kand. sel'khoz. nauk; KSENDZ, A.T.; LESHCHUK, T.Ya.; LUK'YANOV, I.A., kand. sel'khoz. nauk; MAYCHENKO, Z.G., kand. sel'khoz. nauk; TANASIYENKO, F.S., kand. khim. nauk; ZNAMENSKIY, M.P.; PERSIDSKAYA, K.G.; PODLESNOVA, A.F.; ROGOCHIY, I.Ya.; REZNIKOV, A.R.; SHUL'GIN, G.T.; KHOTIN, A.A., doktor sel'khoz. nauk; LAPSHINA, O.V., red.; MINENKOVA, V.R., red.; MAKHOVA, N.N., tekhn. red.; BALLOD, A.I., tekhn. red.

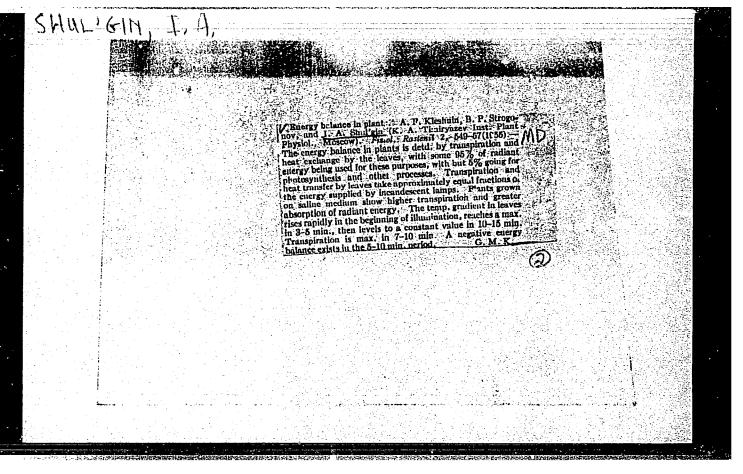
三大社会区内的基本的**的现在分词 医克拉斯氏征 医克拉斯氏征** 医克拉斯氏征 医克拉斯氏征

[Aromatic plants] Efiromaslichnye kul'tury. Moskva, Sel'-khozizdat, 1963. 358 p. (MIRA 16:12) (Ukraine--Aromatic plants)

KLESHNIN, A.F.; STROGONOV, B.P.; SHUL'GIN, I.A.

New method for determining transpiration. Fiziol.rast. 1 no.2: 188-192 N-D '54. (MIRA 8:10)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva Akademii nauk SSSR, Moscow
(Plants--Transpiration)



I'M gary I.A.

USSR/Plant Physiology - Water Regimen.

I.

Abs Jour

: Ref Zhur - Bioli, No 18, 1958, 82018

Author

: Kleshnin, A.F., Shul'gin, I.A.

Inst

Title

: The Intensity of Transpiration Under artificial Light.

Orig Pub

: Fiziol. rasteniy, 1957, 4, No 6, 548-553

Abstract

Plant transpiration under strong (35000-1.000.000 erg/ cm sec) illumination by incandescent lamps attained its maximum during the first 15 min and then diminished and became stable. It was strongest in the Solanum bycopersicum, Malus communis, Acer platanoides. It was weaker for the Cucumis sativus. It was smallest for Calla ethiopica, Ilex pyramidalis. The transpiration of 20 of 23 studied species is rigorously proportional to the illumination. The maximum transpiration intensity (547 g/n2-hour) is noted in the Populus tremula in a hot-house and at 19-260 and under integral lamp rediation of

Card 1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"

USSR/Plant Physiology - Water Regimen

I.

Abs Jour : Ref Zhur - Biol., No 18, 1958, 82018

1.000.000 erg/cm². sec. ... L.I. Krasovskiy.

Card 2/2

- 25 -

KLESHNIN, A.F., SHUL'GIN, I.A.

Leaf temperature of plents in artificial light. Biofizika 3 no.4:438-446 (MIRA 11:8)

1. Institut fiziologii rasteniy AN SSSR, Moskva. (PLANTS, MFFECT OF LIGHT ON)

SHUL'GIN, I.A.; KLESHNIN, A.F.; VERBOLOVA, M.I.

Photoelectric determination of the optical properties of plant leaves. Fiziol.rast. 5 no.5:473-476 S-0 '58. (MIRA 11:11)

Institut fiziologii rasteniy imeni K.A. Timiryazeva AN SSSR, Moskva i Kafedra darvinizma Moskovskogo gosudarstvennogo universiteta, Moskva. (Leaves--Optical properties) (Photoelectric measurements)

17(1) AUTHORS:

Kleshnin, A. F., Shuligin, I. A.,

SOV/20-122-5-53/56

Bokovaya, M. M.

TITLE:

On the Specific Heat Capacity and the Bound Water of Plants

(Ob udel'noy teployemkosti i svyazannoy vode rasteniy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 5, pp 940-943

(USSR)

ABSTRACT:

In the present paper the results of the determinations of bound water according to the specific heat capacity of plant tissues are described. As it is known, the specific heat capacity of free water is equal to 1, those of iron, however, and of crystal water 0.5 cal/g.degree. In colloids (humus, starch, gelatin, gum arabic) the specific heat capacity decreases with the decrease of the water content in the colloid from 1 to 0.5 cal/g.degree (Refs 1-6). This fact makes possible the use of the index value in question of different states of the water as well as the elaboration of a method of determination for the various forms of water in the plant by proceeding from the additivity principle (printsip additivnosti). The authors determined the heat capacity calorimetrically in petroleum (for maize and pea

Card 1/4

On the Specific Heat Capacity and the Bound Water of Plants

SOV/20-122-5-53/56

seads) or in water (leaves of various types of plants). The results obtained are given in the tables 1-4 and figures 1-3. The authors proved by these experiments that the specific heat capacity of absolutely dry maize seeds is 0.295, and that of the pea seeds 0.383 cal/g.degree (Figs 1:3, and 4). In the case of a high water content the specific heat capacity of the seeds increases linearly (Figs 1:1 and 2), whereas it considerably deviates from the straight line in the case of a low humidity (to 25 %). This deviation means that the average specific heat capacity of the water C_w calculated according to the formula

$$C_{w} = \frac{C_{f} - C_{m} (1 - W)}{W}$$
 (1)

is not constant but changes to a high degree depending on the humidity of the seeds (Figs 1:5). From all this the authors draw the following conclusions: 1.—In the plant tissue there are at least three forms of water: a) one firmly bound (specific heat capacity = 0.5 cal/g.degree) b) one loosely bound (capacity 0.5-1 cal/g.degree) and c) free water

Card 2/4

On the Specific Heat Capacity and the Bound Water in Plants

SOV/20-122-5-53/56

(! cal/g.degree). 2.—The ratio between the firmly bound and the loosely bound water in the seeds amounts to 1:2 (Fig 2). When proceeding from the physical heterogeneity of water the additivity equation is modified taking into account the plant tissues (2). From the equation (2) the authors derive the content of the firmly bound water H and of the loosely bound water 2H, respectively:

$$H = \sqrt{W} + C_m (1 - W) / - C_f$$
 (3)

Table 1 shows the calculation results according to formula (3) for 16 types of plants. The maximum content of firmly and loosely bound water was found in the leaves of the mescphytes (32.46 %, Table 1) and of the evergreen xerophytes (24.99 %, Table 2), the minimum content was found in hygrophytes (8.61 %, Table 3) and succulents (5.76 %, Table 4). The specific heat capacity of normal living leaves also depends on the ecological group (Fig 3). Its minimum is found in xerophytes (0.709, Table 2) and its maximum in succulents (0.956 cal/g.degree, Table 4). Mesophytes and hygrophytes are in between these two (0.820, Table 1, and 0.908, Table 3).

Card 3/4

On the Specific Heat Capacity and the Bound Water SOV/20-122-5-53/56 in Plants

There are 3 figures, 4 tables, and 6 Soviet references.

ASSOCIATION: Institut fiziologii rasteniy im. K. A. Timiryazeva Akademii

nauk SSSR (Institute of Plant Physiology imeni K. A.

Timiryazev of the Academy of Sciences USSR)

PRESENTED: June 21, 1958, by A. L. Kursanov, Academician

SUBMITTED: June 21, 1958

Card 4/4

SHUL'GIN, I.A.; KLESHNIN, A.F.; VERBOLOVA, M.I.

Role of anthocyanins in the absorption of radiation energy by plant leaves. Nauch.dokl.vys.shkoly; biol.nauki no.2:166-174 (MIRA 12:6)

1. Rekomendovana kafedroy darvinizma gosudarstvennogo universiteta im. M.V.Lomonosova.

(Anthocyanin) (Solar radiation) (Leaves)

KLESHNIN, A.F.; SHUL'GIN, I.A.

Energy balance of plant leaves in artificial light. Vest. Mosk.un. Ser. biol., pochv., geol., geog. 14 no.1:23-30 '59.

(Plants, Effect of light on) (MIRA 12:9)

47

17(1) AUTHORS:

Kleshnin, A. F., Shul'gin, I. A.

SOV/20-125-5-56/61

TITLE:

On the Optical Properties of Plant Leaves (Ob opticheskikh

svoystvakh list'yev rasteniy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 5, pp 1158-1161 (USSR)

ABSTRACT:

The main part of the radiation energy which reaches the leaves is absorbed by them. It is used for all physiological processes and the processes of growth and development related to them. Although since Sachs (Ref 1, 1860) many papers have been published on the topic mentioned in the title, the number of modern papers is very low (Refs 5-9). Therefore it is necessary to investigate the topic mentioned systematically. The rules governing the distribution of the radiation energy absorption within the physiological range of the spectrum have to be determined for most of the plant species under natural conditions. For this purpose the authors investigated approximately 80 species from the cemtral zone of the European part of the USSR according to the earlier published method (Ref 1). These species were planted in fields: sunflower (Helianthus annuus), potato (Solanum tuberosum), et al., altogether 6 species; vegetables: tomato (Solanum lycopersicum), pea (Pisum sativum),

Card 1/3

On the Optical Properties of Plant Leaves

SOV/20-125-5-56/61

cucumber (Cucumis sativus), black radish (Cohlearia armoracia) et al, altogether 10 species; vegetables with a high water content in the leaves: onion (Allium cepa), lettuce (Lactuca sativa), common sorrel (Rumex domesticus), et al. - 5 species; ornamental plants: Perilla nankinensis, Phlox paniculata, peony (Peonia officinalis), Cineraria maritima, et al. - 10 species; wild herbaceous plants: Rubus saxalitis, violet (Viola tricolor), strawberry (Fragaria vesca) et al. - 10 species; trees: white poplar (Populus alba), birch (Betula verrucosa), lime-tree (Tilia vulgaris), hazel tree (Corylus avellana), common (British) oak (Quercus robur) et al.-15 species; aquatic plants - hygro- and hydrophytes: Caltha palustris Menyanthes trifoliata, mypha latifolia, Potamogeton praelongus, et al. - 15 species, which differ from one another by the chlorophyll content in the leaves and have different stands. It was found that the reflection, permeability, and absorption of radiation energy in the individual spectral ranges are rather similar in the major part of these plant species inspite of their different systematic and ecological classification and different stands. This was confirmed by the spectral curves (Fig 1). From these results the conclusion may be drawn that an optical system developed in the course of evolution of the plants: leave - plastides - pigments which got

Card 2/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"

On the Optical Properties of Plant Leaves

SOV/20-125-5-56/61

accustomed to the optimum absorption of radiation energy within a rather narrow range, i. e. irrespective of the species characteristics of the plants. There are 3 figures and

11 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova

(Moscow State University imeni M. V. Lomonosov),

Institut fiziologii rasteniy im. K. A. Timiryazeva Akademii nauk SSSR (Institute of Plant Physiology imeni K. A. Timiryazev

of the Academy of Sciences, USSR)

PRESENTED: January 10, 1959, by A. L. Kursanov, Academician

SUBMITTED: January 9, 1959

Card 3/3

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0 Contraction and agreement to the same and th

SOV/20-125-6-55/61

17(1). AUTHORS: Shul'gin, I. A., Kleshnin, A. F.

On the Correlation Between the Optical Properties and the TITLE:

Chlorophyll Content in Plant Leaves (O korrelyatsii mezhdu opticheskimi svoystvami i soderzhaniyem khlorofilla v list'yakh

rasteniy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 6, pp 1371-1373

(USSR)

ABSTRACT:

The pigment content varies considerably in the plant leaves (Ref 1). However, there are no data on the effects of different chlorophyll contents on the optical properties of leaves, in particular on the absorption of radiation energy. This effect was to be determined in the investigation under review. For this purpose, plants of the middle zone of the European USSR from natural growth conditions were used, both light-loving and shadow-loving plants being employed: herbs, woody plants, ornamentals, crops, and others, a total of 80 species. The optical properties were determined by the method indicated in reference 2. Figures 1-3 show the results. From them it may be concluded that in most of the above-mentioned plants (mainly

Card 1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"

SOV/20-125-6-55/61

On the Correlation Between the Optical Properties and the Chlorophyll Content in Plant Leaves

> mesophytes) the optical properties - transmission, reflexion, and absorption - are independent of the chlorophyll content.

Chlorophyll is mostly present in excess quantities.

There are 3 figures and 2 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova

(Moscow State University imeni M. V. Lomonosov) Institut fiziologii rasteniy im. K. A. Timiryazeva Akademii nauk SSSR

(Institute of Plant Physiology imeni K. A. Timiryazev of the

Academy of Sciences of the USSR)

PRESENTED: January 10, 1959, by A. L. Kursanov, Academician

SUBMITTED: January 9, 1959

Card 2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"

SHUL'GIN, I. A., Cand Biol Sci -- (diss) "Optical properties of the leaves of plants in various geographic zones." Leningrad, 1960. 28 pp; with graphs; (Academy of Sciences USSR, Botannical Inst im V. L. Kom-arov); 300 copies; free; list of author's work on pp 27-28 (20 entries); (KL, 22-60, 135)

SHUL'GIN, I.A.; KLESHNIN, A.F.; VERBOLOVA, H.I.

Relation between optical properties and structural characters in plant leaves. Nauch. dokl. vys. shkoly; biol. nauki no.1:132-135 160. (MIRA 13:2)

1.Rekomendovana laboratoriyey biologii razvitiya rasteniy Moskov-skogo gosudarstvennogo universiteta im. M.V. Lomonosova i Institutom fiziologii rasteniy AN SSSR. (Leaves--Optical properties)

SHUL'GIN, I.A.; VERBOLOVA, M.I.

Optical properties of leaves of aquatic plants. Nauch.dokl.vys. shkoly: biol.nauki no.4:167-174 '60. (MIRA 13:11)

1. Rekomendovana kafedroy darvinizma Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova i Institutom fiziologii rasteniy AN SSSR im. K.A.Timiyaeva.

(AQUATIC PLANTS) (LEAVES--OPTICAL PROPERTIES)

SHUL'GIN, I.A.; KLESHNIN, A.F.; PODOL'NYY, V.Z.

Optical properties of plant leaves in the ultraviolet region of radiation. Fiziol. rast. 7 no.2:141-144 '60. (MIRA 14:5)

1. Institut fiziologii rasteniy imeni K. A. Timiryazeva Ikademii nauk SSSR, Moskva i Biologicheskiy fakul'tet Moskovskogo gosudar-stvennogo universiteta imeni M.V. Lomonosova.

(Leaves-Optical properties)

(Ultraviolet rays)

SHUL'GIN, I.A.; KLESHŅIN, A.F.; BERBOLOVA, M.I.; PODOL'NYY, V.Z.

Studying optical properties of leaves in woody plants with the SF-4 spectrophotometer. Fiziol.rast. 7 no.3:300-308 (MIRA 13:6)

1. K.A. Timiryazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow. (Leaves-Optical properties) (Spectrophotometry)

KLESHNIN, A.F.; SHUL'GIN, I.A.; VERBOLOVA, M.I.

Optical properties of plant leaves. Bot. zhur. 45 no.4:492-506 Ap '60. (MIRA 14:5)

l. Institut fiziologii rasteniy im. K. A. Timiryazeva AN SSSR i Laboratoriya biologii razvitiya rasteniy Moskovskogo gosudarstvennogo universiteta. (Leaves-Optical properties)

SHUL'GIN, I.A.; KLESHNIN, A.F.; VERBOLOVA, M.I.

Optical properties of plant leaves containing anthocyanins. Biul. MOIP. Otd. biol. 65 no. 4:77-83 J1-Ag '60. (MIRA 13:10) (LEAVES--OPTICAL PROPERTIES) (ANTHOCYANIN)

SHUL'GIN, I.A.; KHAZANOV, V.S.; KLESHNIN, A.F.

Nature of the reflection of radiant energy as related to the structure of the leaf.. Dokl.AN SSSR 134 no.2:471-474 S '60. (MIRA 13:9)

1. Institut fiziologii rasteniy im.K.A.Timiryazeva AN SSSR i Vsesoyuznyy nauchno-issledovatel skiy svetotekhnicheskiy insitut. Predstavleno akad. A.L.Kursanovym.

(Leaves--Optical properties)

SHUL GIN, I.A.

Optical characteristics of xeromorphy and succulence in plant leaves. Dokl.AN SSSR 134 no.4:972-975 0 '60. (MIRA 13:9)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva Akademii nauk SSSR. Predstavleno akad.A.L. Kursanovym.

(Leaves-Optical properties) (Botany-Ecology)

SHCHERBINA, I.P.; SHUL'GIN, I.A.

Characteristics of some morphological and physiological corn types in the Kabardino-Balkar A.S.S.R. Nauch. dokl. vys. shkoly; biol. nauki no.3:169-172 '61. (MIRA 14:7)

1. Rekomendovana laboratoriyey biologii razvitiya rasteniy Moskov-skogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(KABARDINA-BALKAR A.S.S.R.--CORN (MAIZE)--VARITIES)

SHUL'GIN, I.A.; KUPERMAN, F.M.; VYSLOUKH, V.A.; SHCHERBINA, I.P.

Chlorophyl content as a physiological index of heterosis in corn. Fiziol. rast. 8 no.6:754-756 161. (MIRA 16:7)

1. Laboratory of the Biology of Development of Moscow University and K.A. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow. (Heterosis) (Corn (Maize)) (Chlorophyll)

KUPFRMAN, F.M., prof. dr. biolog. nauk; PODOL'NYY, V.Z.; SHUL'GIN, I.A., kand. biolog. nauk

こうとうないとうから からはないないないない これのないにってかれたいこ

Changes in the shape and size of sunflower leaves in connection with the stages of its organogenesis. Uch. zap. Kab.-Balk. gos. un. no. 10:31-40 '61. (MIRA 17:6)

SHCHERBINA, I.P.; SHUL'GIN, I.A., kand. biolog. nauk

で、これでは、中国の場合は出発である。 またが、 でんしょう

Characteristics of the leaf apparatus in corn in the Kabardino-Balkar A.S.S.R. Uch. zap. Kab. Balk. gos. un. no.10:41-46 '61.

Characteristics of the surface mass of corn leaves in the Kabardino-Balkar A.S.S.R. Ibid.:55-60 (MIRA 17:6)

VISLOUKH, V.A.; SHUL'GIN, I.A., kand. biolog. nauk

Effect of various climatic conditions under the conditions of vertical zonality on the growth of plants and changes in the pigment system of potato leaves. Uch. zap. Kab.-Balk. gos. un. no.10:47..54 '61. (MIRA 17:6)

SHUL'GIN, I.A.; KHAZANOV, V.S.

Light conditions in plant associations. Pokl. AN SSSR 141 no.6: (MIRA 14:12)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva AN SSSR i Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy institut. Predstavleno akademikom A.L.Kursanovym. (Leaves--Optical properties)

SHUL'GIN, I. A.; KHAZANOV, V. S.; RZHANOVA, T. B.

Ratio of the surface and deep components of light reflected by plant leaves. Nauch. dokl. vys. shkoly; biol. nauki no.3:133-136'62. (MIRA 15:7)

1. Rekomendovana kafedroy darvinizma Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova, Institutom fiziologii rasteniy AN SSSR i Vsesoyuznym nauchno-issledovatel'skim svetotekhnicheskim institutom.

(LEAVES-OPTICAL PROPERTIES)

SHUL'GIN, I.A.; KUPERMAN, F.M.; SHCHERBINA, I.P.

Relation between the chlorophyll content and stages of organogenesis in corn. Fiziol. rast. 9 no.3:347-352 '62. (MIRA 15:11)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva Akademii nauk SSSR, Moskva i Laboratoriya biologii razvitiya rasteniy Moskovskogo gosudarstvennogo universiteta.

(Corn (Maize)) (Chlorophyll)

SHUL'GIN, Igor' Aleksandrovich; KUPERMAN, F.M., prof., otv. red.; KLESHVIN, A.F., prof., otv.red.; DANIL'CHENKO, O.P., red.; GEORGIYEVA, G.I., tekhn. red.

[Morphological adaptations of plants to light; optical properties of leaves. A lecture from the course "Biology of plant development"] Morfofiziologicheskie prisposobleniia rastenii k svetu; opticheskie svoistva list'ev. Lektsiia iz kursa "Biologiia razvitiia rastenii." Moskva, Izd-vo Mosk. univ. 1963. 72 p. (MIRA 16:9) (Leaves—Optical properties)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"

SHUL'GIN, I.A.; PODOL'NYY, V.Z.; SOKOLOVA, S.V.

ACCORDER TO THE PROPERTY OF TH

A method for rapid determination of the chlorophyll content. Fiziol. rast. 10 no.3:383-386 My-Je '63. (MIRA 16:6)

1. K.A.Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow and Laboratory of Biology of Plant Development, Moscow State University.

(Chlorophyll) (Plants—Chemical analysis)

KHODORENKO, L.A.; SHUL'GIN, I.A.

Effect of different illumination conditions on the anatomicomorphological structure of radish leaves. Nauch. dokl. vys. shkoly; biol. nauki no.3:149-153 *64 (MIRA 17:8)

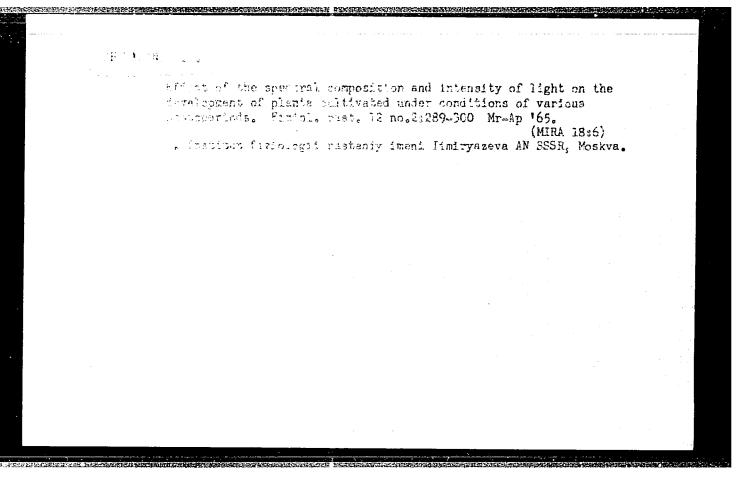
1. Rekomendovana kafedroy darvinizma Moskovskogo gosudarstvennogo universiteta.

SHULIGIN, I.A.

Effect of visibile and infrared radiation on the growth and development of radishes. Fiziol, rast. 11 no. 3: 398-408 '64. (MIRA 17:7)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.

effect of selection intentity on the development and gravity of file to the length of protoperand and the length of selection of the length of the l



SHULIGIN, I.A.; MOLDAU, Kh.A.

Spectral coefficients of the luminosity of plant leaves in natural and polarized light. Dokl. AN SSSR 162 no.6:1430-1433 Je '65.

(MIRA 18:7)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva AN SSSR i Institut fiziki i astronomii AN Estonskoy SSR. Submitted August 26, 1964.

L 27110-66

ACC NR: AP6017474

SOURCE CODE: UR/0020/65/162/006/1430/1433

AUTHOR: Shul'gin, I. A.; Moldau, Kh. A.

ORG: Institute of Plant Physiology im. K. A. Timiryazev, AN SSSR (Institut fiziologii rasteniy AN SSSR); Institute of Physics and Astronomy, AN EstSSR (Institut fiziki i astronomii AN EstSSR)

TITLE: Spectral coefficients of brilliance of plant leaves in natural and polarized light

SOURCE: AN SSSR. Doklady, v. 162, no. 6, 1965, 1430-1433

TOPIC TAGS: plant physiology, biophysics, light polarization

ABSTRACT: The authors used a spectrogoniograph to measure the spectral coefficients of brilliance of corn leaves in reflected and transmitted light. PF-42 filters were used to obtain polarized light and to determine the degree of polarization of the indicatrices. The nature of light diffusion by the leaves was found to vary with the absorption, degree of polarization, and location of the plane of oscillation of the electrical vector of incident light relative to the leaf surface. Moreover, the polarizing action of the leaf with incidence of nonpolarized light was different from its depolarizing action with incidence of polarization was slight in the regions of weak absorption of radiant energy by the leaf;

pronounced, in the regions of strong absorption. This paper was presented by Academician A. L. Kursanov on 26August1964. Orig. art. has 3 figures. IPRS													
SUB CODE	: 06,	20 /	SUBM	DATE:	24Aug	364 /	ORIC	REF:	009				
			•	•									
*					1 1 1 1 7								
* · ·													
												1.50 m	
	•												
•													
•													
***		,											
		•											

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"

CURASH, Asekbandr fortroom by CHULFGIN, Igor' Dmitrlyevich;

VORSHKIVA L.V., met.

{ Calculation of triulating regulated bot-water heating
 system. | Raschen protochus.regulirmenykh sistem vedianoge
 storientia. Kirv. Budivelloys, 1965. 25 p.

(NIRA 18:8)

SAG K 7. M. C. 9

SHULIGHI, I. G.

Issledovanie aliminievykh trub. Moskva, 1931. ló p., tables, diagrs. (TSAGI. Trudy, no 60)

Summary in English.

Title tr.: Investigation of aluminum tubes,

QA911.M55 no.80

SO: Aeronutical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

SALL GOLFES

SHULIGIN, I.G.

Issledovanie diuraliaminievoi provoloki. Moskva, 1931. 43 p., illus. (TSAGI. Trudy, no. 83)

Summary in English.

Title tr.: Investigation of duralumin wire.

QA911. M65 no.83

SO: Aeronutical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

SHUL'GIR, I.G.

Issledovanie diuraliuminievykh zaklepok Moskva, 1931. 79 p., illus., tables, diagrs.

Bibliography: p. 77-78.

Summary in English.

Title tr.: Investigation o duralumin rivets.

QA911.M65 no. F1

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

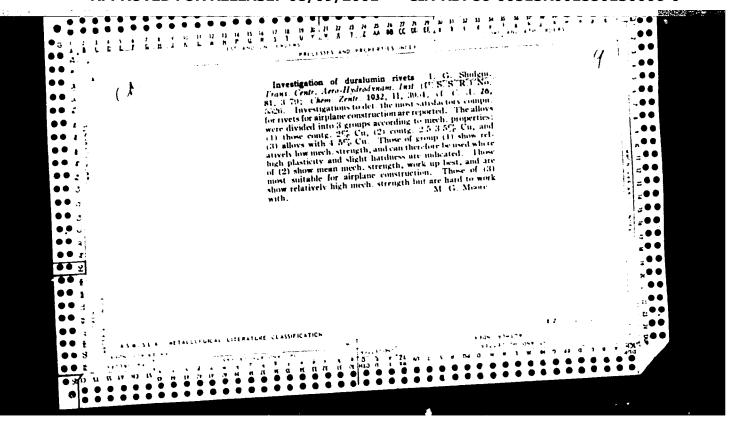
SHULIGH, I.G.

Issledovanie uprugoi i plasyicheskoi deformatsii duraliuminievykh listov pri zagibe. Moskva, 1932. 36 p., illus., tables, diagrs. (TSAGI. Trudy, no.114)

Summary in English.

Title tr.: Investigation of elastic and plastic deformations of duralumin sheets during bending. - QA911.M65 no.16

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.



Shull Him, I.y

HULIGIN, I.G.

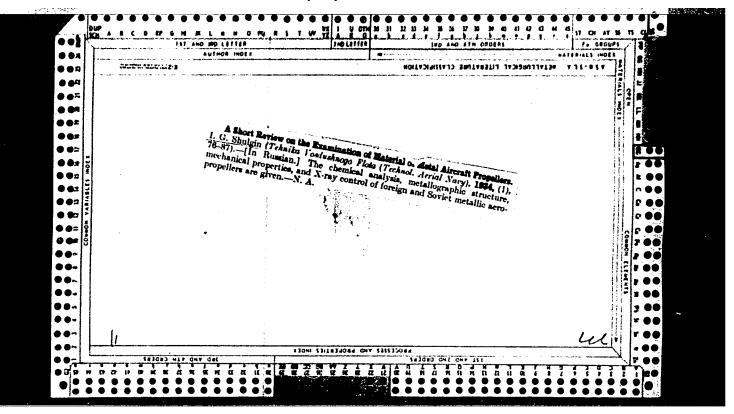
Issledovanie duraliuminievykh tolstostennykh profilei. Moskva, 1933. 38p., tables, diagrs. (TSACI. Trudy, no. 143)

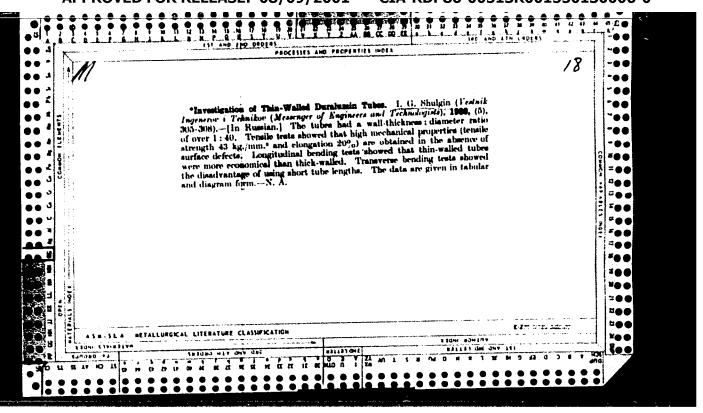
Summary in English.

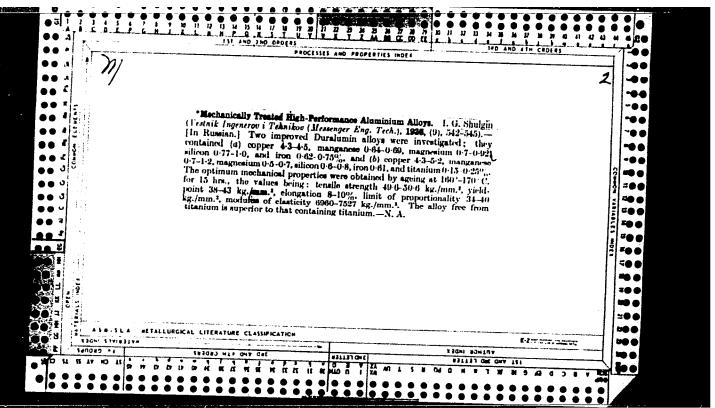
Title tr.: Investigation of dural unin thickwalled sections.

QA911.M65 no. Di3

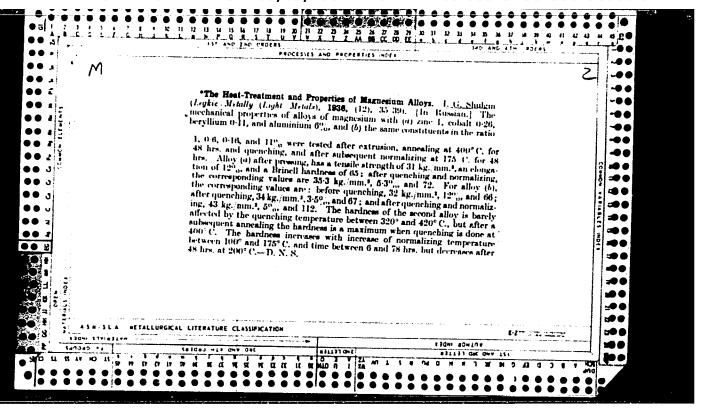
SO: Aeronutical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

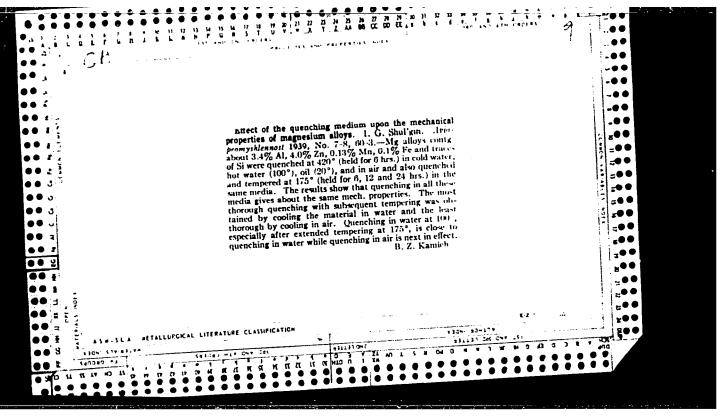






APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"

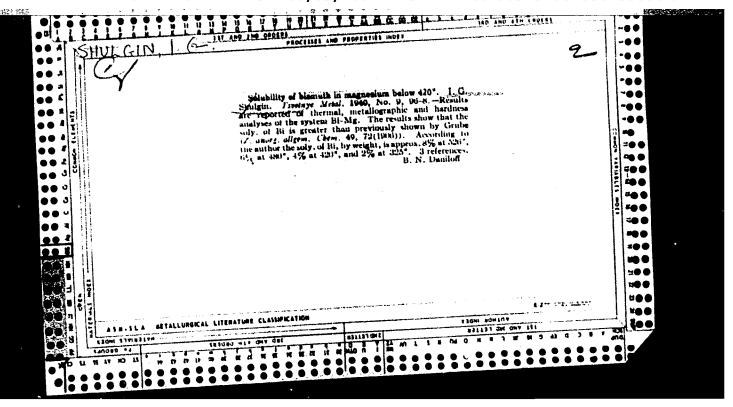




MA

Properties of Alloye

1942



SHUL'GIN, I. G., Docent

"Soldering of Aluminum Alloys on Salt Baths." Sub 14 May 51, Moscow Inst of Nonferrous Metals and Gold imeni M. I. Kalinin

Dissertations presented for science and engineering degrees in Moscow during 1951.

A Topologica Con

SO: Sum. No. 480, 9 May 55

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"

SHULIGIN, I.N.; KHAZANOV, V.S.; KLESHNIN, A.F.; RZHANOVA, T.B.

Scattering of radiant energy by plant leaves. Biofizika 6 no.6:734-739 '61. (MIRA 15:1)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva, Moskva

i Vsesoyuznyy nauchno-issledovatel skiy svetotekhnicheskiy institut. (PLANT PHYSIOLOGY) (RADIATION_SCATTERING)

SHUL'GIN, K. (UA3DA)

Single-sideband electromechanical disc filter. Radio no.1:22-24
Ja '64.

SHULIGIN, K.	î n	4,4/10	
	USSR/Radio Receivers, Battery Apr 48 Radio Receivers, Superheterodyne		
·	"Battery-Powered KV Superheterodyne," K. Shul'gin, 5 pp		
	"Radio" No 4	ì	
	Describes battery-powered superheterodyne receiver, manufactured primarily for installation in agricultural communities. It has five bands (10, 14, 20, 40, and 160 meters), and operates on five tubes. Gives circuit diagrams, and performance.		
	4/49178	<u></u>	

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550130006-0

USSR/Radio Jul 49

DOSARM

"All-Union Championships" 1 p

"Radio" No 7

Representatives of all 16 republics and almost all DOSARM radio clubs took part in the competitions. Many short-wave operators of Czechoslovakia, Rumania, and Hungary also participated.

K. A. Shul'gin, Moscow, again was awarded the title, "Champion of the DOSARM."

51/49779

SHUL'GIN, K.A.

[Building amateur short-wave receivers] Konstruirovanie liubitel'skikh korotkovolnovykh priemnikov. Moskva, Gos.energ.izd-vo, 1953. 142 p. (MLIA 6:7)

(Radio, Short-wave--Receivers and reception)

servan, K.

ASSESTED SECTIONS TO THE SECTION OF ASSESSED.

PA 1897105

USSR/Radio - Receivers, Short-Wave

Feb 5

"Organizing the Production of Receivers for Short-Wave Communications," K. Shul'gin, UA3DA

"Radio" No 2, pp 38, 39

Comments on Kostandi's article in "Radio" No 8, 1950. Kostandi's combination amateur and professional "lst-Class" receiver is not feasible, because amateur and professional use is so different that necessary characteristics could not be combined in one receiver. Makes recommendations for mass-produced short-wave receiver which could be used by amateurs and also in inter- and intra-oblast communications lines.

"Selec mediat "Radio Gives c tube f eratio grid-m screen terist cludin P-50, G-411, P-50,		181T99		· · · · · · · · · · · · · · · · · · ·		 article statements were a	SHUL'GIN K.
Tubes Tubes Tion of Tubes for the Output and Interestages of a Transmitter," K. Shul'gin "No 4, pp 36-40 allent and examples showing how to select or amplification stage in telegraph opodulation stage, and for plate or platemodulation stage, Gives table of charactics for tubes used in transmitters, ing tetrodes G-832, G-829, G-807, G-1625, g-412, G-413, G-414, G-440, G-471, G-837, P-800, and RL12P35.	Transmitters Tubes	Tubes of Tubes for the Output and Ir ges of a Transmitter," K. Shul , pp 36-40	for amplification stage in telegraph ton, for frequency-doubling stage, formodulation stage, and for plate or pen modulation stage, Gives table of stics for tubes used in transmitters, lng tetrodes G-832, G-829, G-807, G-1	(Contd)	3-813, and GKE-100, and pentodes P-6, G-412, G-413, G-414, G-440, G-471, P-800, and RL12P35.	181799	

CHÚLU	LII, K.											
	"Automatic	Calls	(Radio-	l'elegrap	h)," So	viet jo	urnal '	"Radio,	Issue	No. 4,	1952.	

	USSR/Electronics - Transmitters	Jun 52	
	"Calculation of the Output Stage of a Tra K. Shul'gin (UA3DA)	ensmitter,"	
	"Radio" No 6, pp 40-44		
	Gives a method for calculating the output transmitter for a given input power under operating conditions. Method is illustrated case of a G-807 beam tetrode as the output	telegraph ted for the	
š			
		236129	

SHULGIN, K.

"Depending on the more active members."

So. Radio, Vol. 12, p. 10, 1952

SHUL'GIN, K. A.

Building amateur short-wave reasivers. Moskva, Gos. energ. izd-vo, 1955. 142 p.

(Massovais radiobiblioteka, vyp. 171) (54-18906)

TE9956.8516

THE BURDEYNY, F.; KAZANSKIY, N.; KAMALYAGIN, A.; SHUL'GIN, K.; SPIEHEVSKIY, I., redaktor; ZHURAVLEV, A., tekhnicheskiy redaktor.

[Handbook for short-wave radio operators; reference and instruction mamual for radio amateurs] Spravochnik korotkovolnovika; spravochnometodicheskoe posobie dlia radioliubitelei. Izd. 2-e, perer. i dop. Moskva, Izd-vo Dosaaf, 1953. 424 p. [Microfilm] (MLRA 7:11)

(Radio, Short wave)

SHUL'GIN, K.

Radio, Short-Wave

First book on ultra short waves. I. P. Zherebtsov. Reviewed by K. Shul'gin. Radio No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

SHOLIGIM, K.

Amplifiers, Vacuum - Tube

Input device and high frequency amplifiers. Radio No. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

SHUL'GIN, K.

How the radio receiver works; low-frequency amplifier and regenerative detector. Radio no.6:52-55 Je '53.

(Amplifiers, Vacuum-tube) (Radio--Receivers and reception)

1. 100 10 A H SUMMAR BENEFIT BOND BOND BOND A SUM

Shul'GIN, K.

Short-wave sets at the l1-th All-Union Radio Exhibition. Radio no.7:

(MLRA 6:7)
36-39 Jl '53.

(Radio, Short wave)

SHUL'GIN, K.

USSR/Electronics - Transmitters

Dec 53

"Selection of Operating Conditions and Tuning of a Radiotelephone Transmitter," K. Shul'gin (UAZDA)

Radio, No 12, pp 36-40

Gives general discussions of amplitude, grid bias, and suppressor grid modulation with formulas, graphs, and diagrams. Concludes suppressor grid modulation is most advantageous of grid modulation systems.

276T35

Electronics - Radio design USSR/ . Pub. 89 - 16/28 Card . Shul'gin, K. Authors . What radio amateurs should work on in the short wave and ultra-short Title wave fields : Radio 1, 31-33, Jan 1954 Periodical A few problems in the short and ultra-short wave fields are outlined Abstract for radio-amateurs, to find good and ecomomical solutions for such problems as the construction of a antenna array, the construction of short-wave transmitting and receiving radios etc. It was also felt

that measuring devices for the short and ultra-short wave radios will

also be designed and constructed.

Institution:

Submitted: ...

USSR/ Electronics - Heterodyne receivers

Card 1/1

Pub. 89 - 31/40

MANAGEMENT OF THE PARTY OF THE

Authors

: Shul'gin, K.

Title

t The operation of a superheterodyne receiving set

Periodical : Radio 10, 44-48, Oct 1954

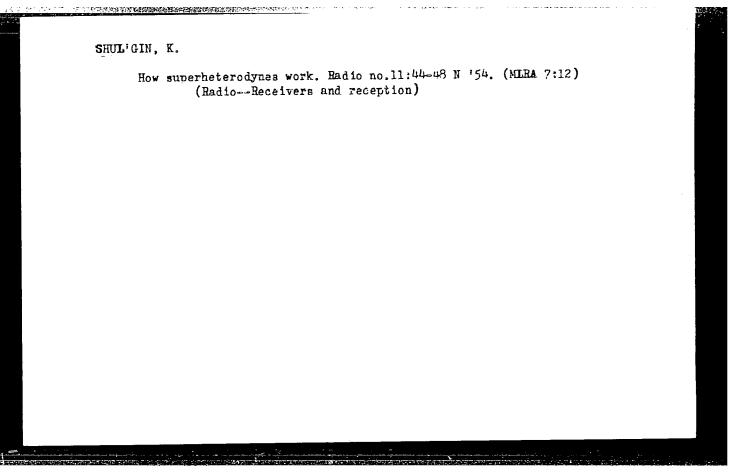
Abstract

General technical information and instructions for the operation of a superheterodyne receiver are given. The following pertinent points are discussed: principles and characteristic features of superheterodyne reception; frequency conversion; "gang-tuning" of superheterodyne circuits, and others. Diagrams (including circuit and block diagrams); graphs.

Institution:

Submitted:

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001550130006-0"



KAMINIR, Lev Borisovich; SHUL'GIN, K.A., red.; VORONIN, K.P., tekhn.red.

[Cathode follower] Katodnyi povtoritel'. Moskva, Gos.energ.
izd-vo, 1955. 55 p. (Massovala radiobiblioteka, no.226)

(Cathode followers)

(Cathode followers)

ZHEREBTSOV, I.P.; SHULIGIN, K.A., redaktor; GRIGOR'YEVA, A.I., redaktor; KARYAKINA, M.S., tekninicheskiy redaktor.

[Meter wave technique] Tekhnika metrovykh voln. Moskva, Izd-vo (MIRA 8:5) (Radio waves)

SHUL'QIN, K,

USER/ Electronics - Oscillatory circuit

Card 1/1

Pub. 89 - 25/28

Authors

Shul'gin, K.

Title

Oscillatory circuit

Periodical

Radio 4, 54-57, Apr 1955

Abstract

The oscillatory circuit consisting of an induction coil and a capacitor is described, and its various forms of application are explained.

Diagrams; graphs.

Institution :

....

Submitted

• • • •

SHUL'GIN, K.

USSR/ Electronics - Amplifiers

Card 1/1

Pub. 89 - 20/24

Authors

: Shullgin, K.

Title

How does an amplifier function?

Periodical

* Radio 5, 50 - 53, May 1955

Abstract

The performance of an electron low-frequency amplifier was demonstrated to a beginners class by using a two-stage NCh-amplifier as an example. It is explained that LF-amplifiers are divided into voltage and power amplifiers, the first of which amplifies the supplied voltage needed for the excitation of the power amplifier. The task of the latter is to increase the LF-oscillation intensity to a level necessary for normal performance of the loudspeaker connected to the amplifier output. Since electron tubes are integral parts of amplifiers the lecturer also explains the basic characteristics of such tubes. Diagrams; graphs.

Institution:

Submitted :

RIZKIN, Iosif Khaimovich; SHUL'GIN, K.A., redaktor; SKYORTSOV, I.M., tekhnicheskiy redaktor

[Frequency division] Delenie chastoty. Moskva. Gos. energ. izd-vo. 1956. 37 p. (Massovaia radiobiblioteka, no.245) (MIRA 9:10) (Radio ciruits)